



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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L6  
2/13/04

re application of:

Akira ISHIDA

Confirmation No.: 2277

Application No. 09/781,545

Attorney Docket No: 101201-00014

Filed: February 13, 2001

Art Unit: 2686

For: WIRELESS BASE STATION AND A WIRELESS PHONE

Examiner: Andrew T. Harry

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111

**RECEIVED**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

FEB 17 2004

February 9, 2004

Technology Center 2600

Sir:

In reply to the Office Action dated September 8 2003, the time period for responding being extended for two (2) month from December 8, 2003 to February 8, 2004 by the attached Petition for Extension of Time, please amend the above-Identified application as follows:

2. (Original) The wireless base station of Claim 1,  
wherein the association information includes a plurality of IDs and state  
information that shows the plurality of mobile stations as being associated with the  
plurality of IDs,

wherein the wireless base station further comprises:

request receiving means for receiving a request for assignment of a  
channel from a mobile station out of the plurality of mobile stations; and

assigning means for (a) specifying an ID for the requesting mobile station  
when the request has been received, wherein the specified ID differs from an ID  
associated with another mobile station, with which the wireless base station currently  
communicates using the SDM, (b) updating the state information by associating the  
specified ID with the requesting mobile station, and (c) sending information to the  
requesting mobile station, wherein the sent information shows the specified ID and a  
channel assigned to the mobile station.

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3. (Original) The wireless base station of Claim 1, further comprising  
association deleting means for deleting, when a communication with a  
mobile station is completed, an association between the mobile station and an  
associated ID from the association information.

4. (Original) The wireless base station of Claim 1, further comprising:  
ID receiving means for receiving an ID from a mobile station out of the  
plurality of mobile stations; and

updating means for updating the association information by associating the received ID with the mobile station that sent the ID when the ID has been received.

5. (Original) The wireless base station of Claim 1, further comprising:

ID receiving means for receiving an ID from the mobile station out of the plurality of the mobile stations; and

sending/updating means for (a) referring to the association information when the ID has been received, (b) notifying the mobile station that an ID differing from the received ID should be sent if the association information associates the received ID with another mobile station, and (c) updating the association information by associating the received ID with the mobile station that sent the ID if the association information does not associate the received ID with any mobile station.

A | 6. (Original) The wireless base station of Claim 1,

wherein when the receiving means has received the data, the extracting means also (a) obtains a plurality of first signals from the received data, (b) obtains a second signal estimated to have been sent from each of the plurality of mobile stations, using the plurality of obtained first signals and a plurality of weight vectors that are vector factors, (c) specifies an ID associated with each mobile station by referring to the association information, (d) defines a reference signal containing the specified ID, (e) compares a component of the defined reference signal with a component of the obtained second signal to detect a difference between the two components, each component corresponding to a same predetermined period, (f) adjusts the second